

Notice of Allowability

Application No.

10/630,619

Examiner

Johnnie L Smith II

Applicant(s)

YIN ET AL.

Art Unit

2881



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to application filed 07/28/2003.
2. ☒ The allowed claim(s) is/are 14-30.
3. ☒ The drawings filed on 28 July 2003 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 1028,1103,0308
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

DETAILED ACTION

Priority

1. Applicant's claim for domestic priority is acknowledged. **EXAMINER'S**

AMENDMENT

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with David Jaffer on 08/31/2004.

The application has been amended as follows:

- a) In claim 15, line 1, "as in claim 1" has been changed to -- as in claim 14 --
- b) In claim 16, line 1, "as in claim 1" has been changed to -- as in claim 14 --
- c) In claim 17, line 1, "as in claim 3" has been changed to -- as in claim 16 --
- d) In claim 18, line 1, "as in claim 4" has been changed to -- as in claim 17 --
- e) In claim 19, line 1, "as in claim 1" has been changed to -- as in claim 14 --
- f) In claim 20, line 1, "as in claim 6" has been changed to -- as in claim 19 --
- g) In claim 21, line 1, "as in claim 7" has been changed to -- as in claim 20 --

- h) In claim 22, line 1, "as in claim 7" has been changed to -- as in claim 20 --
- i) In claim 24, line 1, "as in claim 10" has been changed to -- as in claim 23 --
- j) In claim 25, line 1, "as in claim 10" has been changed to -- as in claim 23 --
- k) In claim 26, line 1, "as in claim 12" has been changed to -- as in claim 25 --
- l) In claim 27, line 1, "as in claim 10" has been changed to -- as in claim 23 --
- m) In claim 28, line 1, "as in claim 14" has been changed to -- as in claim 27 --
- n) In claim 29, line 1, "as in claim 15" has been changed to -- as in claim 28 --
- o) In claim 30, line 1, "as in claim 15" has been changed to -- as in claim 28 --

Allowable Subject Matter

- 3. Claims 14-30 are allowed.
- 4. The following is an examiner's statement of reasons for allowance: the prior art cited and searched failed to teach or fairly suggest, an electron optical column having a voltage contrast plate with a plate aperture, the edge of which is beveled at an angle so as to produce an electric field free region below said aperture on the surface of a specimen substrate situated immediately below said voltage contrast plate in combination with the remaining elements of claim 14. Claims 15-22 are allowable because of their dependencies upon claim 14. The prior art searched and cited failed to teach or fairly suggest an electron optics assembly for a multi-

column electron optical system having a single voltage contrast plate with a multiplicity of plate apertures, such that there is a corresponding plate aperture for each column, the edges of said plate apertures are beveled at an angle so as to produce electric field free regions below said apertures on the surface of a wafer situated immediately below said voltage contrast plate in combination with the remaining elements of claim 23. Claims 24-30 are allowable because of their dependencies upon claim 23.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US patents; 6,252,412 (Talbot et al), 6,465,783 (Nakasuji), 6,509,750 (Talbot et al), 5,502,306 (Meisburger et al), 6,734,428 (Parker et al), 6,750,455 (Lo et al), 6,738,506 (Miller et al). All of the cited US patents contain art similar to that being claimed by applicant, more specifically, defect detecting methods and apparatuses.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Johnnie L Smith II whose telephone number is 571-272-2481. The examiner can normally be reached on Monday-Thursday 7-4 P.M. and Alternate Fridays.

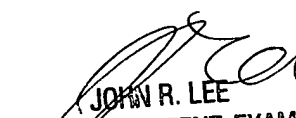
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R Lee can be reached on 571-272-2477. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



LSII

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Examiner
Art Unit 2881



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